CLAIMS:

- A catheter comprising:
 a catheter shaft having a proximal end and a distal end;
 an inflation balloon having a proximal waist portion and a distal waist portion;
- 5 and

a catheter tip having a proximal end, a distal end, a main shaft portion and a distal shaft portion, said catheter tip proximal end being coupled to said catheter shaft distal end, said balloon distal waist portion being attached to said catheter tip distal shaft portion; and said catheter tip main shaft portion being substantially coextensive with

10 said balloon.

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- 2. The catheter of claim 1, further comprising at least one marker.
- 3. The catheter of claim 2, wherein said marker is a radiopaque marker.
- 4. The catheter of claim 2, wherein said marker is an MRI marker.
- 5. The catheter of claim 1, wherein said catheter tip distal end comprises a radiused tip.
- 6. The catheter of claim 1, wherein said catheter tip further comprises a recessed portion.
- 7. The catheter of claim 1, wherein said catheter tip further comprises a hub portion.
- 20 8. The catheter of claim 7, wherein said catheter tip comprises a molded catheter tip and said hub portion is formed integrally with the catheter tip.
 - 9. The catheter of claim 8, further comprising at least one marker.
 - 10. The catheter of claim 9, wherein said radiopaque marker is insert molded.
 - 11. The catheter of claim 10, wherein an outer surface of said radiopaque marker is
- 25 flush with an outer surface of said catheter tip.
 - 12. The catheter of claim 1, further comprising a stiffener.
 - 13. The catheter of claim 12, wherein the stiffener is a spring.
 - 14. The catheter of claim 1, wherein said catheter tip further comprises a marker region.
- 30 15. The catheter of claim 1, wherein said catheter tip further comprises a first region and a second region, said first region having greater flexibility than said second region.

- 16. The catheter of claim 15, wherein said second region comprises entrained stiffening fibers.
- 17. The catheter of claim 1, further comprising: an outer catheter shaft;
- wherein said balloon proximal waist portion is coupled to said outer catheter shaft.
 - 18. The catheter of claim 1, wherein said catheter tip is coupled to said catheter shaft by heat bonding.
- 19. The catheter of claim 1, wherein said catheter tip is coupled to said catheter shaft10 by radio-frequency welding.
 - 20. The catheter of claim 1, wherein said catheter tip is coupled to said catheter shaft with an adhesive.
 - 21. The catheter of claim 1, wherein the catheter is a stent delivery catheter.
 - 22. The catheter of claim 21, further comprising a stent mounted about the balloon.
- 15 23. The catheter of claim 22, wherein the stent is an inflation expandable stent.
 - 24. The catheter of claim 22, wherein the stent is a self-expanding stent.
 - 25. The catheter of claim 1, wherein said catheter tip includes a shaped portion, the cross-section of the shaped portion having a plurality of sides.
 - 26. The catheter of claim 25, wherein the shaped portion is triangular.
- 20 27. A catheter tip comprising:
 a proximal free end, a distal free end and a length of at least 4 millimeters.
 - 28. The catheter tip of claim 27, wherein said length is less than 70 millimeters.
 - 29. The catheter tip of claim 27, wherein said length is at least 4 times its width.
 - 30. The catheter tip of claim 27, further comprising a recessed portion.
- 25 31. The catheter tip of claim 30, further comprising a second recessed portion.
 - 32. The catheter tip of claim 27, further comprising a raised hub portion.
 - 33. The catheter tip of claim 27, wherein said distal free end comprises a radiused tip.
 - 34. The catheter tip of claim 27, further comprising at least one marker.
- 30 35. The catheter tip of claim 34, wherein said marker is an MRI marker.
 - 36. The catheter tip of claim 34, wherein said marker is a radiopaque marker.
 - 37. The catheter tip of claim 34, wherein said marker is insert molded.

- 38. The catheter tip of claim 37, wherein an outer surface of said marker is flush with an outer surface of the catheter tip.
- 39. The catheter tip of claim 34, wherein said marker comprises a hub portion.
- 40. The catheter tip of claim 27, further comprising a marker region.
- 5 41. The catheter tip of claim 27, further comprising a first region and a second region, said first region having greater flexibility than said second region.
 - 42. The catheter tip of claim 41, wherein said second region further comprises entrained stiffening fibers.
 - 43. The catheter tip of claim 27, further comprising:
- a distal shaft portion; and

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- a balloon having a proximal waist portion and a distal waist portion;
- wherein said balloon distal waist portion is coupled to said catheter tip distal shaft portion.
- 44. The catheter tip of claim 43, wherein said balloon proximal waist portion is proximal to said catheter tip first free end.
- 45. The catheter tip of claim 43, wherein said balloon proximal waist portion is distal to said catheter tip first free end.
- 46. The catheter tip of claim 27, further comprising a stent mounted about said catheter tip.
- 20 47. The catheter tip of claim 46, wherein said stent is a self-expanding stent.
 - 48. The catheter tip of claim 46, wherein said stent is an inflation expandable stent.
 - 49. The catheter tip of claim 27, further comprising a shaped portion, the cross-section of the shaped portion having a plurality of sides.
 - 50. The catheter tip of claim 49, wherein the shaped portion is triangular.
- 25 51. The catheter tip of claim 27, further comprising a stiffener.
 - 52. The catheter tip of claim 51, wherein the stiffener is a spring.
 - 53. A method of manufacturing catheter tip comprising:

 molding or extruding a catheter tip having a proximal end, a distal end and a
 feature selected from a group consisting of a hub portion, a recessed portion, a marker, a
 stiffener, a marker region and a fiber entrained region.
 - 54. The method of claim 53, further comprising insert molding at least one marker in the catheter tip.

- 55. The method of claim 53, wherein said catheter tip is further coupled to a catheter shaft by heat bonding.
- 56. The method of claim 53, wherein said catheter tip is further coupled to a catheter shaft by radio-frequency welding.
- 5 57. The method of claim 53, wherein said catheter tip is further coupled to a catheter shaft with an adhesive.

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